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EXAMINER

MENDOZA, MICHAEL G

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PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte COREY M. GROVE and STEPHEN E. CHASE

Appeal 2009-014408
Application 09/992,684
Technology Center 3700

Before LORA M. GREEN, JEFFREY N. FREDMAN, and
STEPHEN WALSH, *Administrative Patent Judges*.

GREEN, *Administrative Patent Judge*.

DECISION ON APPEAL¹

This is a decision on appeal under 35 U.S.C. § 134 from the Examiner's rejection of claims 1-7, 10-12, and 17-20. We have jurisdiction under 35 U.S.C. § 6(b).

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the "MAIL DATE" (paper delivery mode) or the "NOTIFICATION DATE" (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

STATEMENT OF THE CASE

Claim 1 is representative of the claims on appeal, and reads as follows:

1. A modular helmet-mask assembly which comprises:
 - (a) a helmet capable of enclosing the head of a user, said helmet comprising an impact resistant material; and
 - (b) a face protection assembly, alternately attachable to and detachable from a front part of said helmet, which face protection assembly comprises
 - (i) a face protection shell comprising an impact resistant material;
 - (ii) a vision port through the shell at the level of the eyes of a user;
 - (iii) a flexible nose cup assembly within the shell, which nose cup assembly is positioned to engage the mouth and nose of a user, said nose cup comprising a breathe-through airflow assembly and a filter unit;
 - (iv) a flexible face seal, disposed on an inner surface of the shell around the nose cup assembly and the vision port, which face seal is capable of engaging the face of a user; and
 - (v) an adjustable head harness attached at an surface of the shell or the face seal which is capable of engaging the back of a user's head to thereby adjustably secure the face seal and nose cup assembly to a user's face, and
 - (c) either (i) or (ii):
 - (i) a transparent, impact resistant lens fixed to the vision port at the level of the eyes of a user;
 - (ii) a transparent, impact resistant lens rotatably attached at the front part of the helmet and positioned to alternately engage and disengage with the vision port of the shell at the level of the eyes of a user.

Claim 17, the other independent claim on appeal is drawn to a method for protecting a user's face from chemicals by providing a modular helmet-

mask assembly, wherein the modular helmet-mask assembly has the limitations set forth in claim 1.

The following grounds of rejection are before us for review:

- I. Claims 1, 3, 4, 6, 7, 10, 11, 17, 19, and 20 stand rejected under 35 U.S.C. § 103(a) as being obvious over the combination of Gallet² and Vogliano.³
- II. Claims 2, 12, and 18 stand rejected under 35 U.S.C. § 103(a) as being obvious over the combination of Gallet and Vogliano, as further combined with Lane.⁴
- III. Claim 5 stands rejected under 35 U.S.C. § 103(a) as being obvious over the combination of Gallet and Vogliano, as further combined with Epperson.⁵

We reverse all of the above rejections.

ISSUE

Has the Examiner established by a preponderance of the evidence that the combination of Gallet and Vogliano renders obvious a modular helmet-mask assembly as set forth in claim 1?

² Gallet, US 4,817,596, issued April 4, 1989.

³ Vogliano, US 5,191,882, issued March 9, 1993.

⁴ Lane, US 5,555,569, issued September 17, 1996.

⁵ Epperson, US 6,279,172 B1, issued August 28, 2001.

FINDINGS OF FACT

FF1 According to the Specification, the “invention relates to . . . modular respiratory masks that offer protection from hazardous chemical and/or biological warfare agents and the like.” (Spec. 1.)

FF2 Figure 2 of the Specification is reproduced below:

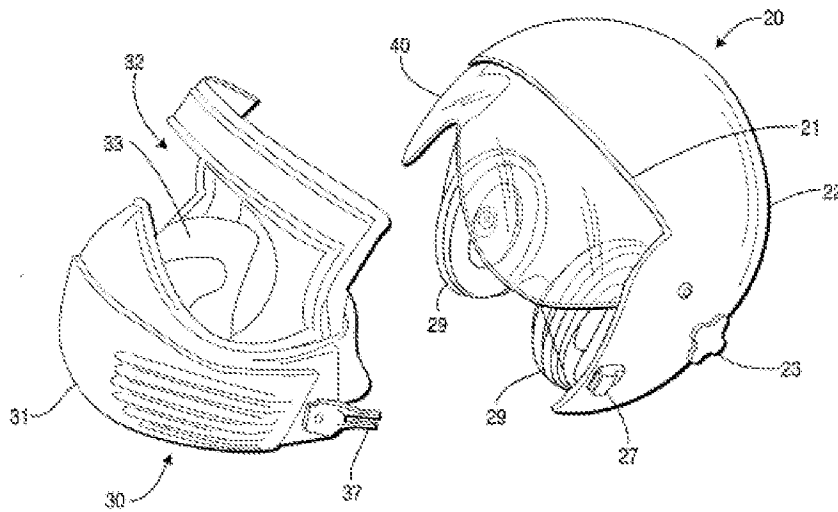


FIG. 2

“Fig. 2 shows a view of a helmet and mask of the helmet-mask assembly showing the helmet portion separated from the face protection assembly portion.” (*Id.* at 6.)

FF3 The face protection assembly, 30, comprises an adjustable head harness attached to harness clips (*id.* at 8), wherein the head harness is attached at a surface of the face protection shell or the face seal (*id.* at 10).

FF4 In addition, the face protection assembly 30 is attachable and detachable from the front part of the helmet, such as through fasteners 37.

(*Id.*)

FF5 The Specification teaches that in a preferred embodiment:

[T]he face protection assembly 30 is placed onto a user's head such that the flexible face seal . . . engages the user's face, and such that the nose cup assembly 33 engages the user's mouth and nose. The adjustable head harness is adjusted such that the face seal 34 and nose cup 33 are secured to the user's face. The helmet 20 is then placed onto the user's head such that the helmet 20 encloses the user's head, and the helmet 20 is attached to the face protection assembly 30. A position adjustable adjustment pad . . . of the helmet 20 engages the back of the user's head. The adjustment pad . . . is adjusted by turning a tightening adjustment knob . . . such that it pushes the user's head forward towards a front part 21 of the helmet 20, thereby adjustably securing the face seal . . . and nose cup assembly 33 to the user's face.

(*Id.* at 11.)

FF6 The Examiner's statement of the rejections may be found at pages 3-5 of the Answer.

FF7 Specifically, the Examiner relies on Gallet for teaching a modular helmet-mask assembly. (Ans. 3.)

FF8 Specifically, Gallet teaches a "respirator usable with th[e] helmet has a mask engageable through the face cutout snugly with the face of the wearer of the helmet, respective right and left hooks engageable with the anchor elements and fixed to the mask, and a spring connected between the hooks and mask for pulling the mask back into the helmet." (Gallet, col. 1. ll. 52-58.)

FF9 The Examiner notes that “Gallet fails to teach the adjustable head harness is attached at a surface of the shell or the face seal which is capable of engaging the back of a user’s head.” (Ans. 4.)

FF10 The Examiner relies on Vogliano for teaching an “apparatus with a common adjustable head harness attached at a surface of the shell or the face seal which is capable of engaging the back of a user’s head.” (*Id.*)

FF11 Specifically, Vogliano teaches “an apparatus for enabling a strapless breathing mask that is normally worn with a protective helmet to be worn without the protective helmet.” (Vogliano, col. 1, ll. 13-15.)

FF12 According to Vogliano, the “resilient holder can easily be removed from the strapless breathing mask if it is desired to reconnect the mask to a protective helmet.” (*Id.* at col. 1, ll. 46-48.)

FF13 The Examiner concludes that it would have been obvious “to use straps in view of Vogliano with the modular helmet-mask assembly of Gallet to allow the face protection assembly to be worn without the use of the helmet.” (Ans. 4.)

FF14 According to the Examiner:

The configuration of Gallet in combination with Vogliano would allow helmet-mask assembly of Gallet to be worn without the use of the helmet (see abstract). A helmet would be able to be placed on top of the straps of Vogliano if the head of the user needs to be protected.

(*Id.* at 6.)

PRINCIPLES OF LAW

While the analysis under 35 U.S.C. § 103 allows flexibility in determining whether a claimed invention would have been obvious, *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007), it still requires showing that “there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *Id.* An invention “composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *Id.* The obviousness analysis “should be made explicit,” and it “can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.” *Id.* “We must still be careful not to allow hindsight reconstruction of references to reach the claimed invention without any explanation as to how or why the references would be combined to produce the claimed invention.” *Innogenetics, N.V. v. Abbott Labs.*, 512 F.3d 1363, 1374 n.3 (Fed. Cir. 2008).

ANALYSIS

Appellants argue that the head harness of Vogliano would not work with the helmet-mask assembly taught by Gallet. (*See* App. Br. 6.) Specifically, Appellants argue that the mask of Gallet “is held and sealed to the face of the wearer by attachment to the helmet worn by the wearer.” (*Id.*) Appellants assert further that Vogliano teaches a strapless mask “designed only for use with a protective helmet, and is attached to the protective helmet via plugs . . . and plug receptacles.” (*Id.* at 8.) According

to Appellants, since the mask of Vogliano is strapless, it can only be removed from the helmet and “inserted into a detachable, resilient mask holder (Vogliano’s invention) so that the strapless breathing mask can be used without the helmet.” (*Id.* at 9.) Thus, Appellants assert, “the mask holder/suspension system of Vogliano and the helmet are not designed to work together in any way.” (*Id.*) According to Appellants, when used with a helmet, the mask of both Gallet and Vogliano is held to the wearer’s face by attachment to the helmet. (Reply Br. 4.) The claimed helmet, Appellants assert, requires integration of the of the face protection assembly and the helmet, as the claimed face protection assembly “includes a face protection shell having . . . a head harness for engaging the back of the wearer’s head to secure the face seal to the user’s face which can be attached to the face protection assembly after the face protection assembly is donned by the user.” (App. Br. 10.)

We conclude that Appellants have the better position. As noted by Appellants, the mask holder of Vogliano that the Examiner relies on for the limitation of “an adjustable head harness attached at an surface of the shell or the face seal which is capable of engaging the back of a user’s head to thereby adjustably secure the face seal and nosecup assembly to a user’s face,” (Claim 1) is only used without the helmet (*see* FF11). Further, Vogliano specifically teaches that if it is desired to use the helmet with the mask, the head harness is removed and the mask is reattached to the helmet (*see* FF12.) The Examiner merely concludes that one could place the helmet of Gallet over the head harness of Vogliano if a helmet is needed, (*see* FFs 13 and 14). The Examiner has not provided evidence or reasoning as to why

the ordinary artisan would have found it desirable to use both the head harness and helmet, wherein the face protection assembly (*i.e.*, the mask) is attachable to both at the same time, as required by independent claim 1. We are thus compelled to reverse the rejection.

As Lane and Epperson are cited to address limitations added by dependent claims (*see* Ans. 4-5), they do not remedy the deficiencies of the combination of Gallet and Vogliano as set forth above, we are also compelled to reverse the remaining two rejections on appeal.

CONCLUSION OF LAW

We conclude that the Examiner has not established by a preponderance of the evidence that the combination of Gallet and Vogliano renders obvious a modular helmet-mask assembly as set forth in claim 1. We thus reverse all the rejections before us for review.

REVERSED

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